



## Environmental Science, Grade 11 University/College Preparation (SVN3M)

**Prerequisite** – Grade 10 Science, Applied or Academic

**Credit** – 1.0

**Teacher** – Mr. Zuberi

**Email** – [azuberi@torontoprepschool.com](mailto:azuberi@torontoprepschool.com)

**Textbook** – Living in the Environment, Second Canadian Edition  
by G. Tyler Miller & Dave Hackett | Nelson Education, 2011

**Extra-Help** – Every morning from 9:00 to 9:50 or by appointment in the afternoon

### Course Description

This course provides students with the fundamental knowledge of and skills relating to environmental science that will help them succeed in life after secondary school. Students will explore a range of topics, including the role of science in addressing contemporary environmental challenges; the impact of the environment on human health; sustainable agriculture and forestry; the reduction and management of waste; and the conservation of energy. Students will increase their scientific and environmental literacy and examine the interrelationships between science, the environment, and society in a variety of areas.

Unit	Titles and Descriptions	Time and Sequence
Unit 1	<b><i>Scientific Solutions to Contemporary Environmental Challenges</i></b> Students examine current environmental issues that are complex, and may involve conflicting interests or ideas. Scientific knowledge is used as a method of enabling people to make informed decisions about effective ways to address environmental challenges.	22 hours
Unit 2	<b><i>Human Health and the Environment</i></b> Students examine environmental factors that can have negative effects on human health and how it is possible to minimize some of the negative health effects of environmental factors by making informed lifestyle choices and taking other precautions.	22 hours
Unit 3	<b><i>Sustainable Agriculture and Forestry</i></b> Students examine modern agricultural and forestry practices that can have positive and negative consequences for the economy, human health, and the sustainability of ecosystems, both local and global.	22 hours
Unit 4	<b><i>Reducing and Managing Waste</i></b> Students examine well-thought-out waste management plans help to sustain ecosystems, locally and globally. By making informed choices, consumers can reduce the amount or alter the nature of the waste they produce.	22 hours
Unit 5	<b><i>Conservation of Energy</i></b> Students examine the impact of energy production and consumption on environmental sustainability and how it depends on which resources and energy production methods are used.	22 hours
	<b>Total</b>	<b>110 hours</b>

## **Overall Course Expectations**

### A. Scientific Investigation Skills and Career Exploration

A1. demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating);

A2. identify and describe careers related to the fields of science under study, and describe the contributions of scientists, including Canadians, to those fields.

### B. Scientific Solutions to Contemporary Environmental Challenges

B1. analyse social and economic issues related to an environmental challenge, and how societal needs influence scientific endeavours related to the environment;

B2. investigate a range of perspectives that have contributed to scientific knowledge about the environment, and how scientific knowledge and procedures are applied to address contemporary environmental problems;

B3. demonstrate an understanding of major contemporary environmental challenges and how we acquire knowledge about them.

### C. Human Health and the Environment

C1. analyse initiatives, both governmental and non-governmental, that are intended to reduce the impact of environmental factors on human health;

C2. investigate environmental factors that can affect human health, and analyse related data;

C3. demonstrate an understanding of various environmental factors that can affect human health, and explain how the impact of these factors can be reduced.

### D. Sustainable Agriculture and Forestry

D1. evaluate the impact of agricultural and forestry practices on human health, the economy, and the environment;

D2. investigate conditions necessary for plant growth, including the soil components most suitable for various species, and various environmentally sustainable methods that can be used to promote growth;

D3. demonstrate an understanding of conditions required for plant growth and of a variety of environmentally sustainable practices that can be used to promote growth.

### E. Reducing and Managing Waste

E1. analyse economic, political, and environmental considerations affecting waste management strategies;

E2. investigate the effectiveness of various waste management practices;

E3. demonstrate an understanding of the nature and types of waste and strategies for its management.

### F. Conservation of Energy

F1. assess the impact on society and the environment of the use of various renewable and non-renewable energy sources, and propose a plan to reduce energy consumption;

F2. investigate various methods of conserving energy and improving energy efficiency;

F3. demonstrate an understanding of energy production, consumption, and conservation with respect to a variety of renewable and non-renewable sources.

## Assessment and Evaluation

This course will be broken down into five units and each of these units may include a mini-test and will conclude with a unit test. While these unit tests will make up a large portion of your course mark, there will also be a number of assignments and mini-tests. This course will conclude with a course-culminating task (CCT) and will consist of an ISP (Independent Study Project) prior to the final written exam, and the written exam itself.

Knowledge and Understanding – 25%

Thinking and Inquiry – 25%

Communication – 25%

Application – 25%

Course Work – 70% (Tests, assignments, mini-tests)

CCT – 30% consists of ISP worth 15% and Final Written Exam worth 15%

## Course Information

In an effort to reduce our consumption of paper, many of the handouts for this course (other than this one) will only be distributed electronically. This class has a Wiki site that will contain important dates, class handouts, some class notes, and hopefully some student-generated content.

Environmental Science 11 Wiki Site: <http://es11winter2013.wikispaces.com/>

## Required Materials

While it is expected that you will bring your computer to every class, there will be situations where it is more appropriate to take notes using pen/pencil and paper. In addition, while I will try to keep physical handouts to a minimum, there still needs to be a place where they can be easily stored and retrieved.

- 3-ring binder with 5 separate sections
- Lined and blank paper
- Pens, pencils, an eraser, a calculator, and ruler

## Academic Due Dates

All homework, assignments, and projects will have a **due date**. The due date is the **beginning** of the period for that given class. For example if a project is due for the period 1 class, it must be submitted at 10:00 AM, if it is due for a period 4 class on a Wednesday, then it is due at 2:49 PM. The **due date** represents the date in which the homework/assignment/project is due. Students should submit the homework/assignment/project to their teacher on the due date. If a student does not submit the task on the due date, the teacher will contact the parents/guardian to notify them of the student's outstanding work. The teacher **will not** provide support after the due date has passed. Late marks will be deducted on late assignments. This strategy is in keeping with the Ministry's policy document "Growing Success". Late projects/assignments will be assessed at a reduction of **5% per day** for the first two days and **10% per day** after that to a maximum of **50%**. Each project will be assessed for the 100% of its original value, and late marks will be clearly stated on the final evaluation. After 6 school days, a student will receive a zero. Students are strongly encouraged to still hand in late projects for assessment and written feedback. A Saturday Club inclusion will be made within the 6 days. Projects/assignments turned into the teacher after they have been marked and returned to students, will not be awarded a grade if the project/assignment is one the teacher believes can be copied from peers (at teacher's discretion), however, written feedback on the assignment will be given (journals, reflection pieces, etc).

### **Extension Request Form**

There is a procedure for students to seek relief from a due date and extend a deadline without an academic penalty. In extraordinary circumstances, **extensions may be granted, if an Extension Request Form is filled out by the student and signed by a parent and approved by the teacher at least one day before the due date.** It is up to the discretion of the teacher and the school administration whether or not to accept the extension request. A student may request an extension to the **maximum of two times in each course and for no more than three days.** After the allotted time has passed and the assignment has not been submitted, then late marks will be assigned. Our policy recognizes that extenuating circumstances may legitimately prevent a student from meeting a due date. The Extension

Request Form may be garnered from the principal or the vice-principal.

### **Illness/Doctor's Notes**

If a student is absent on the due date, a doctor's note (or parental note in case of a family emergency) must be provided to the teacher in order for the student to submit the assignment. The assignment must be submitted upon the **first day** the student returns.

### **Parental Communication**

Parents will be contacted if the assignment/project is not submitted on the due date.

### **E-mail Receipt of Assignments**

Since weekend days will be included in the late policy, the submitted time and date will be based on the time that the assignment arrives in the teacher's e-mail inbox.

### **Classroom Procedures**

1. *Respect each other.*
  - a. A classroom should be a place where everyone feels comfortable asking questions and expressing their views. Any failure to respect one another will result in a poorer classroom experience for everyone.
2. *Stay on top of the course material.*
  - a. In a semestered environment it is easy to fall behind very quickly. If you are away for any reason, it is recommended that you speak to either myself or a classmate to determine what you missed. It is also a good idea to always check the course Wiki.
3. *Do not miss important test dates or presentation dates.*
  - a. It is very difficult to accommodate multiple test dates and so every student should do everything possible to write tests or perform presentations on the assigned dates. If a test or presentation is missed, the student must bring a note from a parent or guardian stating the reason for the absence.
4. *Participation in the class is essential.*
  - a. Staying focused in the classroom is imperative. This, of course, means that music players, cell phones and portable gaming devices are not permitted in the classroom.
  - b. This also means that you should only be using your computers for tasks related to your learning. Abuse of this privilege will result in your computer being confiscated for the duration of the period.
5. *Have fun.*
  - a. As much as this is a classroom and you are a student, this does not mean that you are not permitted to enjoy yourself. Ask lots of questions and try to find a way to let the material inspire your curiosities.